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Subject: GE News & Science

NEWS

STAT features Luhan Yang, the 21 year old chief science officer of eGenesis, the Harvard spinoff developing GE pigs for organ transplantation

- eGenesis is working to edit out virus sequences and incorporate human versions of genes that otherwise would trigger organ rejection
- Some of their more ambitious edits have failed to produce viable embryos so far

STAT: She's hellbent on solving the organ shortage with 'designer pigs.' Just don't keep her waiting

Mosquitoes infected with biocontrol agent Wolbachia released in the Florida Keys

- The field trial will last 12 weeks
- The trial takes place close to the planned release site for GE Oxitec mosquitoes, which the company is now seeking permission to release in another location

CNN: Florida releases experimental mosquitoes to fight Zika

If confirmed, Agriculture Secretary nominee Sonny Purdue will oversee GE disclosure rulemaking

Politico: Perdue's genetically modified rulemaking

APHIS releases draft environmental assessment for GE diamondback moth for public comment

APHIS: USDA Announces Availability of EA for Field Release of GE Diamondback Moth

Bloomberg: Genetically-Engineered Moths Spark Debate Over Biotech Bugs

APHIS releases draft environmental impact statement for freeze-tolerant eucalyptus for public comment

APHIS: USDA Requests Public Input on dEIS for Deregulation of Freeze-Tolerant GE Eucalyptus

Hobby corn breeder uses a known mutation and a favorable genetic background to grow a 45 foot tall corn stalk

• He achieved this by manipulating environmental conditions and introducing the *leafy* mutation into the Chiapas genetic background

The Scientist: Record-Setting Corn Grows 45 Feet Tall

COMMENTARY

Greg Jaffe of the Center for Science in the Public Interest cautions against gimmicky and unverified non-GMO labeling claims

- He criticizes Tropicana orange juice and other products labeled as "non-GMO" in cases where no GE varieties of the food exist
- He notes falsehoods related to food safety on the Non-GMO Project's website
- He criticizes non-GMO claims lacking third party verification

CSPI: Biotech Blog—Shopping for Honesty: Sorting Out Non-GMO Claims

Slate contributor says US biotech regulations are out of date

- The author argues that the genome edited non-browning mushroom lacks, and needs, regulatory oversight
- The article quotes the Center for Food Safety's Jaydee Hanson, the Center for Science in the Public Interest's Greg Jaffe, and NC State's Jennifer Kuzma
- The author says the 2016 update to the Coordinated Framework, "was a lot of work for an underwhelming document."
- "It could be that the agencies will just plug along under the radar and get some real work done. Or the changes and recommendations will languish, and we'll be stuck with the 30-year-old coordinated framework."

Slate: The U.S. Regulations for Biotechnology Are Woefully Out of Date

SCIENCE

Field trials test efficacy of GE bacteria that reveal TNT from landmines by glowing

The trial showed promise for this approach, combined with a drone-mounted scanning device

The Guardian: Glowing bacteria offer hope for safe detection of 100m landmines

Nature Biotechnology: Remote detection of buried landmines using a bacterial sensor

Glyphosate tolerant cotton developed in China

- The cotton expresses GR79 EPSPS and N-acetyltransferase (GAT)
- Field trials at five locations during three growing seasons showed efficacy

Plant Biotechnology Journal: Co-expression of GR79 EPSPS and GAT yields herbicide-resistant cotton with low glyphosate residues

Analysis measures cumulative environmental impact of GE crop adoption from 1996-2015

- Pesticide application was reduced by 618.7 million kg (-8.1%)
- "Environmental Impact Quotient" decreased by 18.6%
- Greenhouse gas emissions decreased equivalent to 11.9 million cars

GM Crops & Food: Environmental impacts of genetically modified (GM) crop use 1996–2015: impacts on pesticide use and carbon emissions

Study ranks consumer preferences for labeling claims with animal products, including non-GMO

• Consumers are most averse to growth hormones and GMOs, whereas "organic" products, which prohibits both, is among the least favored claims

Phys.org: Study ranks which production attributes are most important to consumers when buying beef, chicken

This report is a summary of third-party news, opinion, and scientific literature and is not meant to reflect views of the author or of the U.S. Food & Drug Administration.

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